

REMARKS

After entry of the present Amendment, claims 1 and 3 through 26 remain in the application, with claim 1 in independent form. Claims 1, 13, and 20 have been amended, claim 2 has cancelled, and claims 3 through 12, 14 through 19, and 21 through 26 are unchanged by the present Amendment.

Claim Amendment and Comments

Claim 1 has been amended by incorporation of claim 2 in order to claim, and thereby clarify the amount of component (B) present in the electrically conductive silicone rubber composition of the present invention. Specifically, the amount of component (B) provides from 0.1 mol to 10 mol of silicon-bonded hydrogen atoms from component (B) per 1 mol of alkenyl groups of component (A). Support for this amendment can be found in at least paragraph [0010] of the instant specification and in original claim 2. Claims 13 and 20 have been amended to change dependency from claim 2 to claim 1, due to the aforementioned incorporation of claim 2 into claim 1. No new matter has been added in this Amendment.

Claim Rejections - 35 USC §103

Claims 1 through 26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over either Iino et al. (U.S. Patent No. 6,309,563; hereinafter “Iino”) or Nakano et al. (U.S. Patent No. 5,229,037; hereinafter “Nakano”) in view of Hamachi et al. (U.S. Patent No. 5,840,831; hereinafter “Hamachi”). The Applicants respectfully traverse these rejections. Specifically, in view of the present Amendment and arguments herein, a *prima facie* case of obviousness cannot be properly established.

To summarize, claim 1 (as currently amended) encompasses an electrically conductive silicone rubber composition. The electrically conductive silicone rubber composition comprises (A) 100 parts by weight of an organopolysiloxane having at least two alkenyl groups per molecule. The electrically conductive silicone rubber composition further comprises (B) an organopolysiloxane having at least two silicon-bonded hydrogen atoms per molecule, which is present in an amount to provide from 0.1 mol to 10 mol of silicon-bonded hydrogen atoms from component (B) per 1 mol of alkenyl groups of component (A) and which is sufficient to cure the electrically conductive silicone rubber composition. The electrically conductive silicone rubber composition further comprises (C) an amount sufficient to promote cure of the composition, of a platinum based catalyst, (D) 300 to 5,000 parts by weight of a metal based electrically conductive filler, and (E) 5 to 500 parts by weight of spherical silicone rubber particles with a surface active agent content of greater than 0 but not more than 0.3 wt%.

From the instant Office Action, it is unclear which rationale the Examiner is relying on in order to attempt to establish the basic requirements of a *prima facie* case of obviousness. As the Examiner is aware, in response to the outcome of *KSR v. Teleflex*¹, the MPEP has been updated to provide seven different examples of how the Examiner can establish a *prima facie* case of obviousness. While the Applicants appreciate that these examples, to some extent, are merely guidelines, in the present case, it is unclear which, if any, of the seven examples from MPEP 2143 the Examiner is following to establish the instant obviousness rejections.

¹ *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 82 USPQ2d 1385 (2007).

Regardless of which example may have been followed by the Examiner, as discussed herein, it is clear that the Examiner cannot establish a *prima facie* case of obviousness.

Specifically, while Nakano discloses the use of a silicon-bonded hydrogen-containing organopolysiloxane (or the use of an organic peroxide) as a curing agent, Nakano is completely silent about a content of the silicon-bonded hydrogen-containing organopolysiloxane used to form its conductive silicone rubber composition, if the silicon-bonded hydrogen-containing organopolysiloxane is even employed at all. Therefore, at a minimum, Nakano fails to teach or suggest component (B) of the present invention in the amounts as claimed for the present invention.

Iino discloses the use silicone rubber particles; however, such silicone rubber particles are used in the compositions of Iino *merely* as extending filler. Further, Iino is completely silent about a content of the silicone rubber particles used to form its conductive silicone rubber composition, if the silicone rubber particles are even employed at all. Therefore, at a minimum, Iino fails to teach or suggest component (E) of the present invention in the amounts as claimed for the present invention. Consequently, even if for argument's sake, one assumes that Hamachi and Nakano (or Iino) are combined, the third criterion of a *prima facie* case of obviousness cannot be established. Specifically, even if the references were to be combined, the references combined still fail to teach or suggest all of the claim limitations of the present application. In view of the foregoing, the Applicants respectfully submit that claim 1 is both novel and non-obvious.

Further, the current state of the law in terms of the obviousness standards, even post-*KSR*, **does not** provide the Examiner with *carte blanche* to develop obviousness rejections in any acceptable manner. In other words, the Examiner is not merely enabled to find each element of a claimed combination *somewhere* in the prior art, and then piece each element together **in light of the teachings of the present invention** to then *reach* the present invention. “This form of hindsight reasoning, using the invention as a roadmap to find its prior art components, would discount the value of combining various existing features or principles in a new way to achieve a new result - often the very definition of invention.” (emphasis added; see *Ruiz v. A.B. Chance Co.*, 357 F.3d 1270, 1275 (Fed. Cir. 2004)). The Applicants assert that one of ordinary skill in the art would not look to the teachings of Hamachi in light of the teachings of Nakano or Iino (or vice versa), as the Examiner contends, because none of these prior art references provide a teaching, suggestion or motivation to do so.

The primary goal of Hamachi is to provide silicone rubber particles “inhibited from evolving **unpleasant odors** with the passage of time” (emphasis added; see column 1, lines 38-40). Hamachi teaches that “such odorless cured silicone powders are particularly useful in the **personal care arena** where the presence of odor in consumer products is especially objectionable” (emphasis added; see column 6, lines 29-36). In other words, Hamachi is **completely silent** about employing its silicone rubber particles for use in electrically conductive silicone rubber compositions. To the contrary, Hamachi teaches silicone rubber particles useful for **personal care products**. Those of ordinary skill in the silicone art appreciate that silicone based personal care products, such as skin lotion, are quite different from electrically conductive

silicone rubber compositions, which can be used for making flexible connectors, anisotropic electrically conductive films, and various other electrode materials, as well as for sheet- and pad-shaped heat-radiating materials.

Unlike Hamachi, the primary goals of Nakano and Iino are to provide conductive silicone rubber compositions free from disadvantages of conventional conductive silicone rubber compositions (as described in their respective Background of the Invention sections). *However*, “odors”, “fumes”, or “smells” of such compositions are not described or suggested at all in Nakano or Iino, and such terms are certainly not described or suggested in any way as being disadvantages in their conductive silicone rubber compositions or any of the conventional conductive silicone rubber compositions. As such, one of ordinary skill in the art would not look to remedy such an odor problem, **since odor is not a “problem” of such compositions**, and would especially not look to components used for personal care products to remedy such a problem, even if odor was considered one.

Moreover, while not necessary in view of the arguments above, Nakano and Iino are silent about the contents of surfactant (if any) in their silicone rubber compositions. As the Examiner has recognized in the instant Office Action, the “difference between the prior arts and the instant claimed invention is that Iino failed to teach the silicone rubber composition with a surface active agent in an amount greater than 0 but no more than 0.3 wt.%”. However, the Examiner then asserts that “it is within the expected skills of one having ordinary skill in the art to produce the claimed silicone rubber powder and incorporated the said silicone powder into a conductive silicone rubber composition”. **The Applicants respectfully disagree with the**

Examiner's assertion for the reasons set forth herein. As set forth in detail above, one of ordinary skill in the art would not look to the teachings of Hamachi in light of the teachings of Nakano or Iino (or vice versa), as the Examiner contends, because none of these prior art references provide a teaching, suggestion or motivation to do so.

Further, both Nakano and Iino are silent about providing an electrically conductive silicone rubber composition containing a metal based electrically conductive filler and spherical silicone rubber particles, capable of forming a highly electrically conductive silicone rubber having low hardness and low permanent compression set and exhibiting little thickening by controlling surface active agent content in the spherical silicone rubber particles (see, e.g. paragraph [001] of the present application). Yet further, both Nakano and Iino are silent with regard to viscosity of their conductive silicone rubber compositions.

As noted in the Background section of the present application (see paragraph [002]), the Applicants are aware of previous electrically conductive silicone rubber compositions including silicone rubber powders, including the electrically conductive silicone rubber composition of Nakano. However, as *expressly* described in the Background section, spherical silicone rubber particles prepared as taught in Nakano are problematic, specifically, “the viscosity of the electrically conductive silicone rubber compositions to which they are added increases” (emphasis added). Further, “attempting to produce electrically conductive silicone rubber with low permanent compression set by adding a large amount of spherical silicone rubber filler causes a marked increase in viscosity of the result electrically conductive silicone rubber

composition, which renders preparation of a homogeneous composition impossible” (emphasis added).

As described in the instant specification, component “(E) is *characterized* by containing not more than 0.3 weight% of surface active agent” (emphasis added, paragraph [0015]). Specifically, the wt% content of the surface active agent affects viscosity of the electrically conductive silicone rubber composition. Further, with reference to the examples of the present application, it is shown that having *higher* than 0.3 wt% of a surface active agent, e.g. 0.5 wt% (see Reference Example 1), leads to marked increases in viscosity, such that homogenous compositions could not be prepared. *However*, using 0.3 wt% or less of a surface active agent, e.g. 0.1 wt% (see Reference Example 2, i.e., an Inventive Example), leads to little to no increase in viscosity of the compositions prepared (see paragraphs [0030] and [0037]). As shown through the examples in the present application, conventional methods of preparing the electrically conductive silicone rubber composition using a surface active agent, such as those taught by Nakano, result in surface active agent contents that are in excess of those as claimed in the present invention (see again Reference Example 1), and additional steps are required to lower the surface active agent content to those levels as claimed for the present invention (see again Reference Example 2). In sum, the Applicants recognized a new problem related to viscosity issues in implementing the teachings of the prior art, and found the solution to these viscosity issues as claimed for their invention. As described above, the Examiner cannot use impermissible hindsight reasoning based upon the

teachings of the present invention, and not the prior art itself, to piece together and manipulate elements of the prior art references to arrive at the present invention.

In view of the foregoing, the Applicants respectfully submit that claim 1 is both novel and non-obvious, in view of the disclosure, teachings, and suggestions of the prior art such that claim 1, as well as the claims that depend therefrom, are in condition for allowance. If any additional fees are necessary to respond to the outstanding Office Action, you are hereby authorized to charge such fees to Deposit Account No. 08-2789 in the name of Howard & Howard.

Respectfully submitted,

HOWARD & HOWARD ATTORNEYS

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Date

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